axc474B/BB

User manual

English version - January 2003

Chapter 1 : Precautions and safety regulations

The axc 474 has been designed in compliance with the European EC safety and electrical regulations for data processing devices and in compliance with the safety regulations for terminals in the office equipment environment.

This machine can be used in permanent operation in the ambient conditions of an office.

The following guidelines must be applied when installing and manipulating the reader.

- The reader is equipped with a power cable which must be connected to an earthed wall socket.

- When installing the machine, make sure that the wall socket for the power supply is always within the user's reach.

- Do not connect or disconnect the cables during a thunderstorm.

!!! WARNING !!!

The axc 474 must always be dismantled by first-level maintenance staff and only after the power cable has been disconnected.

- AXIOME Alpha SA will refuse any warranty or application of maintenance clauses if it is established that the axc 474 has been damaged by intervention by an unauthorised person.

- For transportation, the machine must be packed in its original packaging to prevent any shock to the mechanical parts.

Chapter 2 :   General information

2.1. General technical information:

- Operating temperature: 10 to 35 ^{o}C (50 - 95 ^{o}F).

- Relative operating humidity: 20 to 80% without condensation.

- Storage temperature: 0 to 40 ^{o}C (32 - 105 ^{o}F).

- Relative storage humidity: 40 to 80% without condensation.

- Power supply :   Input 115V / 230V AC 50 / 60 Hz (auto-switch).
Output 24 V DC.

- Power consumption under 24V DC: Running mode: 1.6 A max.
                                          Standby: 2.4 mA.

2.2. Electronic characteristics

- Microprocessor: AM188ES.

- Flash memory :   256 K bytes divided into 5 blocks.
  - Block 1 : 16 Kbytes boot.
  - Block 2 : 8 Kbytes user parameters.
  - Block 3 : 8 Kbytes set-up parameters.
  - Block 4 : 96 Kbytes calibration parameters.
  - Block 5 : 128 Kbytes firmware.

- Main motor: Stepping motor.

- Interface: Serial V24 / RS232C.

2.3. Mechanical characteristics:

- Feeding: Automatic.

- Capacity of the input tray: 100 documents (for documents of 90 gr/m^2).

- Capacity of the output trays: Refused =100 documents.
                                           Accepted = 100 documents
                                           (for documents of 90 gr/m^2)

- Document transport speed: 0.5 m/s.

- Weight of paper: 80 to 160 g/m².

- Minimum document format: 113 x 38 mm (4.4" x 1.5").

- Maximum document format: 210 x 140 mm (8,26" x 5.5").

- Paper quality: Optical reading quality (non chemical).

- Document alignment: Automatic.

- Tray management :   Controlled by the program

2.4. MTBF

2.4.1. Feeding:

- First transport wheel :   1'000'000 documents (*)

- Separation wheel :   1'000'000 documents (*)

   (*) average depending on paper quality.

2.4.2. Transport:

- Transport wheel :   5'000'000 documents (*)

- Mini-pitch belt :   20'000'000 documents

- O-ring belt: 5'000'000 documents

- Step motor :   100'000 hours

   (*) average depending on paper quality.

2.4.3. Electronic:

- Electronic boards :   50'000 hours
- Light barrier :   Automatic adjustment to compensate the ageing process.

2.5. Dimensions and weight of the machine

- Length without tray :   357 mm
- Length with tray open: 575 mm
- Width: 220 mm
- Max. depth: 215 mm
- Weight: 6.7 kg

2.6. Optical characteristics

2.6.1. Optical switch

The cells for document detection are red light beams that the document must cut in order to be detected (refer to Figure 3, page 18).

- Document detection cells :   3 cells

2.7. Barcode head

The barcode reading device comprises a special reading head connected by fibre optics to its decoding card.

- Barcode decoder :   1 or 2

- Type of read codes :   Codabar, Code 39, 2/5 interlaced, EAN 13,
                                       EAN 8, Code 128, Code UPC E,
                                       Code UPC, others on request.

- Type selection :   Automatic discrimination by the
                                       reader.

- Resolution of barcode head :   0.15 mm

- Max. no. of barcodes per column :   20 barcodes
                                       250 charact. for one read
                                       100 charact. per barcode

Min. space between two barcodes :   Larger than twice the widest white space of the barcodes.

2.8. Adjustment of the Barcode reading head

- Open the head cover (refer to *To open the cover,* page 19).

- Measure the distance between the reference margin and

- Position the centre of the reading head at the centre of the Barcode line on your document.

Moving the OCR read head.
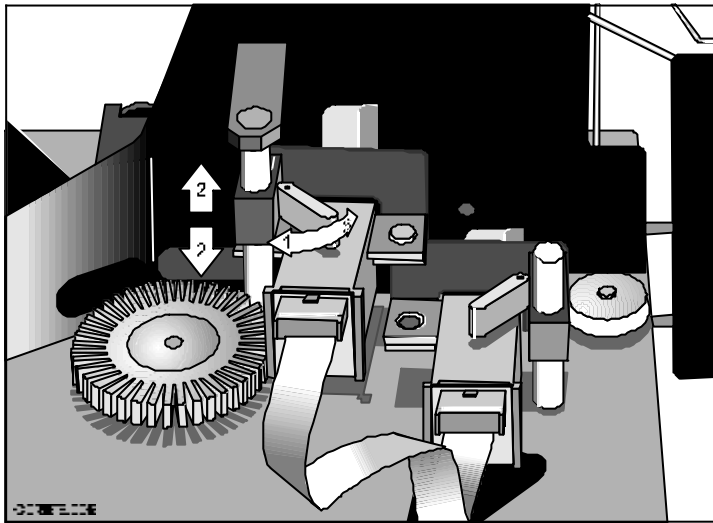
2.8.1. Barcode on the axc474b / bb.

max. 140 mm

Reading axes max. 65mm from the reference edge

AXIOME

AXIOME

Minimal space between 2 codes 14mm

BARCODE inside this area

Reading axes min. 24mm from the reference edge

No label area

8mm

Reference edge

max. 210 mm
207.46 mm

2.54 mm
0 mm
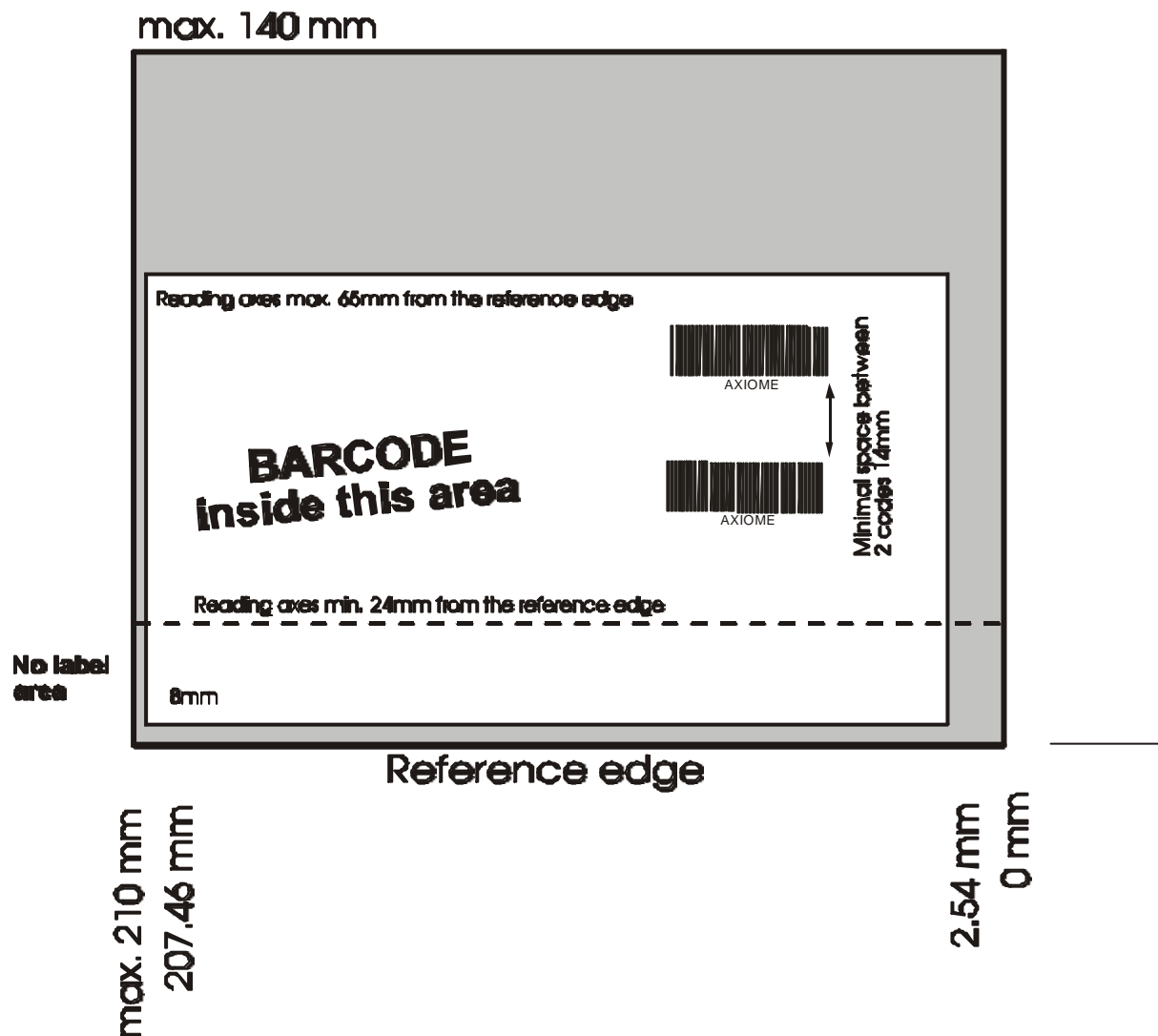
The minimal spacing between two bar-codes must be greater than 4 time the biggest white space inside both codes.

Maximum number of barcodes on one track :   20 Barcodes
250 Character for one reading
100 Characters for one barcode

Max. number of barcode heads on the axc474b/bb: 1 / 2 heads.

The axc474b/bb can decode the following barcodes :

- 2 of 5 interleaved
- EAN 8
- Code 39
- Code AXIOME
- Code UPC E

- Codabar
- EAN 13
- Code 128
- Code UPC A

The head resolution is :   0,15 mm

2.9. HP decoder card

2.9.1. TB2-3 head

The resolution of the TB2-3 head is 0.15 mm with a field depth between 0 and 1 mm from the glass. If you read codes which are not very dense or show some homogeneity defects when you print the black bars, you can improve the reading reliability in moving the head about 2 - 3 mm away from the document.

The width of the glass 0.5 mm enables to hide through integration, the small printing mistakes without penalising the codes which are not perfectly perpendicular (for example sticked labels).

You can read the code despite the printing mistakes.
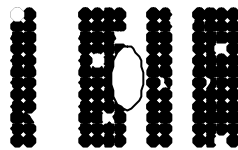
You can read the code despite its angle

The length of the lighting wave 660 mm (red), also allows the reading of the codes printed with the "ink jet" method and on thermal paper.

2.9.2. Decoders

A character indicating the type of code read always precedes the value of the barcode.

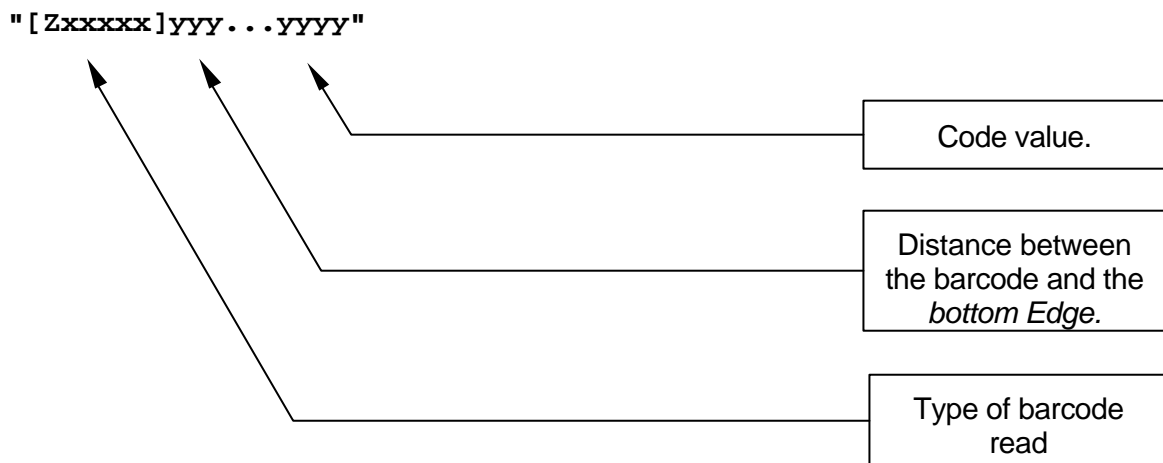|			
I	=	Code 2/5 interleaved	forward + backward
A	=	Code Codabar	forward + backward
C	=	Code 128	forward + backward
E	=	Code 39	forward + backward
G	=	Code AXIOME	forward + backward
TA	=	Code UPC A	forward + backward
TE	=	Code UPC E	forward + backward
TFF	=	Code EAN 8	forward + backward
TE	=	Code EAN 13	forward + backward

The Axiome decoder read up to 20 bar-codes (250 characters) following one another on a document.

2.9.3. Syntax

The barcode syntax transmitted through the reader is the following :

`"[Zxxxxx]yyy...yyyy"`

Code value.

Distance between the barcode and the *bottom Edge.*
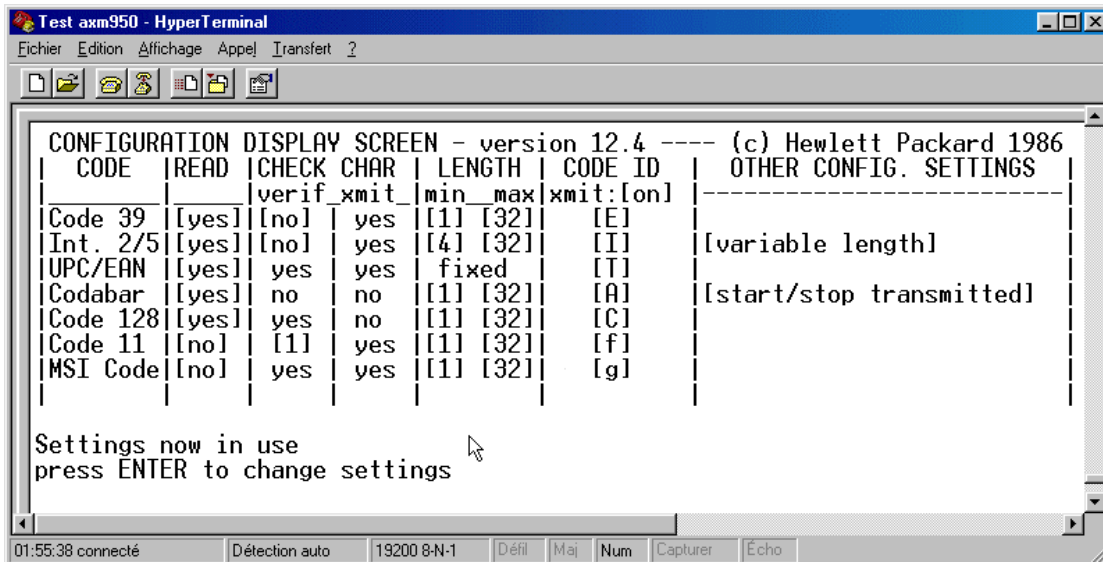
Type of barcode read

Remark :

The distance between the barcode and the bottom edge of the document being not very precise, it cannot be converted into a unit of measure. This value depends on the type and speed of the OMR reader, but is representative of the order in which the codes are read.
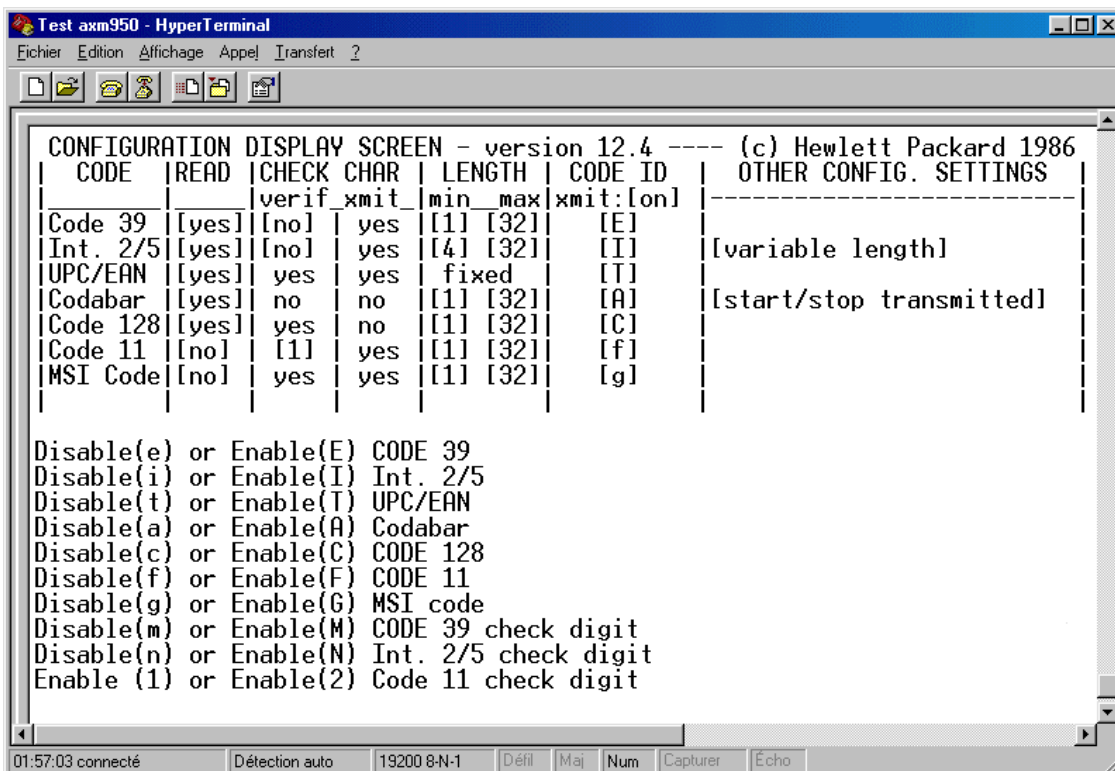
2.9.4. Configuration for HP decoder

The configuration is directly done with a Terminal program on the OMR reader running in test mode (For the test mode, please refer to the corresponding chapter).

This method allows to activate or inactivate some codes. The discrimination of the diverse codes is automatic, nevertheless to improve the decoding speed as well as the reliability, we advise you to activate only the decoders of the used barcodes.

```
Test axm950 - HyperTerminal                                          _ □ ×
Fichier  Edition  Affichage  Appel  Transfert  ?

CONFIGURATION DISPLAY SCREEN - version 12.4 ---- (c) Hewlett Packard 1986
|  CODE   |READ |CHECK CHAR | LENGTH | CODE ID |  OTHER CONFIG. SETTINGS  |
|_____|_____|verif_xmit_|min__max|xmit:[on]|-------------------------|
|Code 39 |[yes]|[no]  | yes |[1] [32]|   [E]   |                         |
|Int. 2/5|[yes]|[no]  | yes |[4] [32]|   [I]   |[variable length]        |
|UPC/EAN |[yes]| yes  | yes | fixed  |   [T]   |                         |
|Codabar |[yes]| no   | no  |[1] [32]|   [A]   |[start/stop transmitted] |
|Code 128|[yes]| yes  | no  |[1] [32]|   [C]   |                         |
|Code 11 |[no] | [1]  | yes |[1] [32]|   [f]   |                         |
|MSI Code|[no] | yes  | yes |[1] [32]|   [g]   |                         |
|        |     |      |     |        |         |                         |

Settings now in use
press ENTER to change settings

01:55:38 connecté       Détection auto    19200 8-N-1    Défil  Maj  Num  Capturer  Écho
```

To change the displayed configuration, press **ENTER**, then activate or deactivate the types of barcode as desired by pressing the respective keys (see below).

```
Test axm950 - HyperTerminal                                          _ □ ×
Fichier  Edition  Affichage  Appel  Transfert  ?

CONFIGURATION DISPLAY SCREEN - version 12.4 ---- (c) Hewlett Packard 1986
|  CODE   |READ |CHECK CHAR | LENGTH | CODE ID |  OTHER CONFIG. SETTINGS  |
|_____|_____|verif_xmit_|min__max|xmit:[on]|-------------------------|
|Code 39 |[yes]|[no]  | yes |[1] [32]|   [E]   |                         |
|Int. 2/5|[yes]|[no]  | yes |[4] [32]|   [I]   |[variable length]        |
|UPC/EAN |[yes]| yes  | yes | fixed  |   [T]   |                         |
|Codabar |[yes]| no   | no  |[1] [32]|   [A]   |[start/stop transmitted] |
|Code 128|[yes]| yes  | no  |[1] [32]|   [C]   |                         |
|Code 11 |[no] | [1]  | yes |[1] [32]|   [f]   |                         |
|MSI Code|[no] | yes  | yes |[1] [32]|   [g]   |                         |
|        |     |      |     |        |         |                         |

Disable(e) or Enable(E) CODE 39
Disable(i) or Enable(I) Int. 2/5
Disable(t) or Enable(T) UPC/EAN
Disable(a) or Enable(A) Codabar
Disable(c) or Enable(C) CODE 128
Disable(f) or Enable(F) CODE 11
Disable(g) or Enable(G) MSI code
Disable(m) or Enable(M) CODE 39 check digit
Disable(n) or Enable(N) Int. 2/5 check digit
Enable (1) or Enable(2) Code 11 check digit

01:57:03 connecté       Détection auto    19200 8-N-1    Défil  Maj  Num  Capturer  Écho
```

Remarks: Attention, these functions are **case sensitive**.

2.10. Programming Software

AXIOME has developed a series of programs enabling optimal use of the readers. The conception of the program series provides several levels of performance and flexibility and provides at each level an extension of the inferior levels.

Each reader is delivered with the basic standard interpreter software **MAX and a default configuration file**.

Chapter 3 :   Installation

3.1. Choice of position

- Place the reader on a stable, flat and horizontal supporting surface.

- Protect the reader from any source of heat such as:
  - direct sunlight
  - heating radiator, etc.

- Also protect the machine from vibrations and humidity.

- Never use the axc 474 in rooms where the atmosphere is contaminated by dust or oil in the gaseous state.

!!! WARNING !!!

The power cable of the axc 474 must never be connected to the same electrical socket as:

- large motors

- refrigerators

- in general: machines generating powerful inductive loads

Never leave the power cable plugged into a power supply when the cable is not connected to the OMR reader.

3.2. List of the contents of the package

Check that the elements mentioned on the list below correspond to the contents of your package. If the equipment has been damaged during transport or some elements are missing, contact your dealer or **Axiome Alpha SA Switzerland** (see address at the end of the manual).

List of contents

- One axc474 reader.

- One primary output tray.

- One cable for the serial connection DB9 /DB25.

- One external power supply.

- One power cable.

- One user manual.

- One MAX programming manual.

- One CD axc474 containing the firmware and software.

Chapter 4 :   Presentation of the axc 474

The optical mark reader axc 474 is an automatic device. Its conception provides easy use and access to the documents and requires little maintenance. Its high transportation speed and the unique feeding system make it a particularly secure and efficient device. Its programming possibilities make it flexible, user-friendly and easy to integrate into any data system.

4.1. Disposition of the main parts

1. Command button.

2. Contrôle LED

3. The reference face (edge) assists guidance of the document.

4. Document insertion tray .

5. Removable head cover.

6. The document separation block prevents a document from joining the previous one. This separation block contains a little wheel allowing you to adjust the separation depending on the thickness of the document.

7. Secondary output tray.

8. Removable primary output tray.

9. Adjustable stop allowing adaptation of the primary output tray to all document formats.
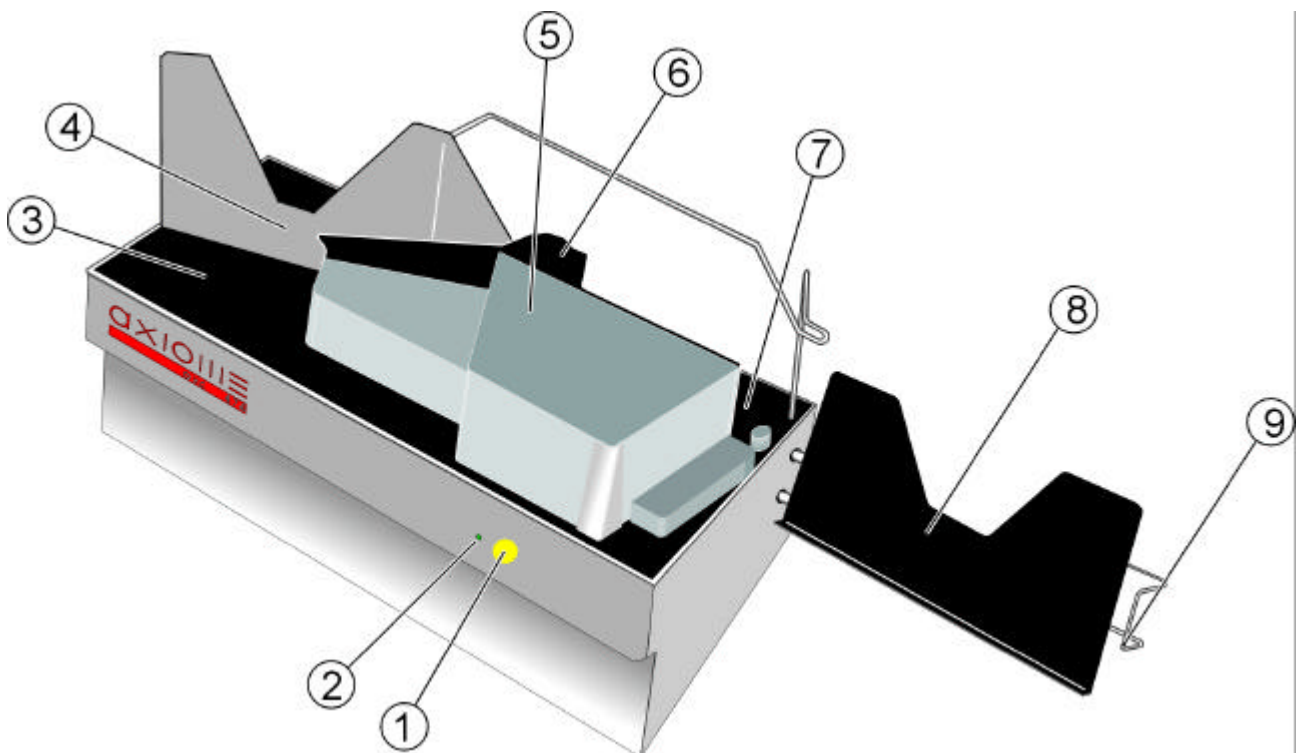
Figure 1

4.2. Disposition of the plug connections

1. Power supply.

2. Serial connection plug (25 poles type V24)
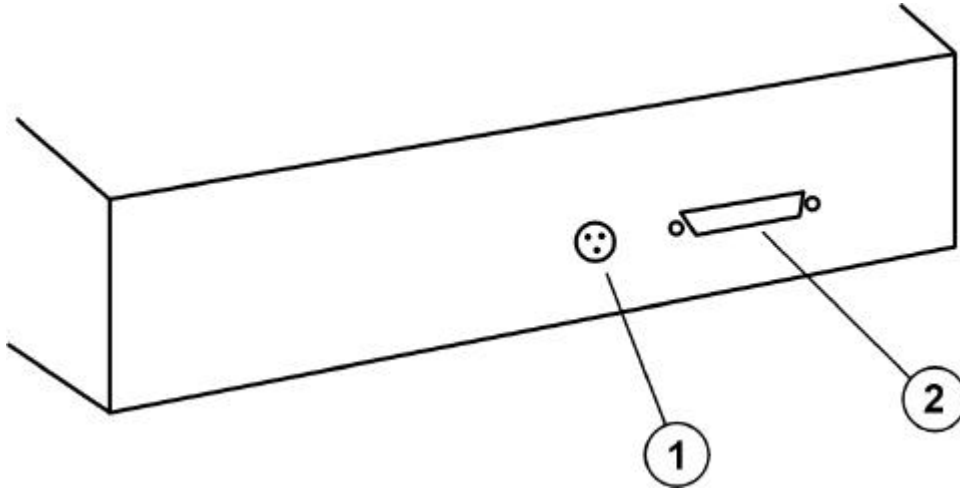
<div align="right">Figure 2</div>

Remark: To unplug the power supply cable, pull the connector and not the cable.

4.3. Disposition of the optical switch

The axc 474 contains three optical switch allowing :

- Control of the document transport.
- Detection of the paper.
- Detection of the secondary output tray.

Each optical switch is defined as follows (see position on Figure 3):

OS1 Controls if there are documents in the input tray for automatic feeding.

OS2 Detects a document before it passes under the read head.

OS3 Controls the document transport and detects if the secondary output tray is full.

Disposition of the optical switches on the reader
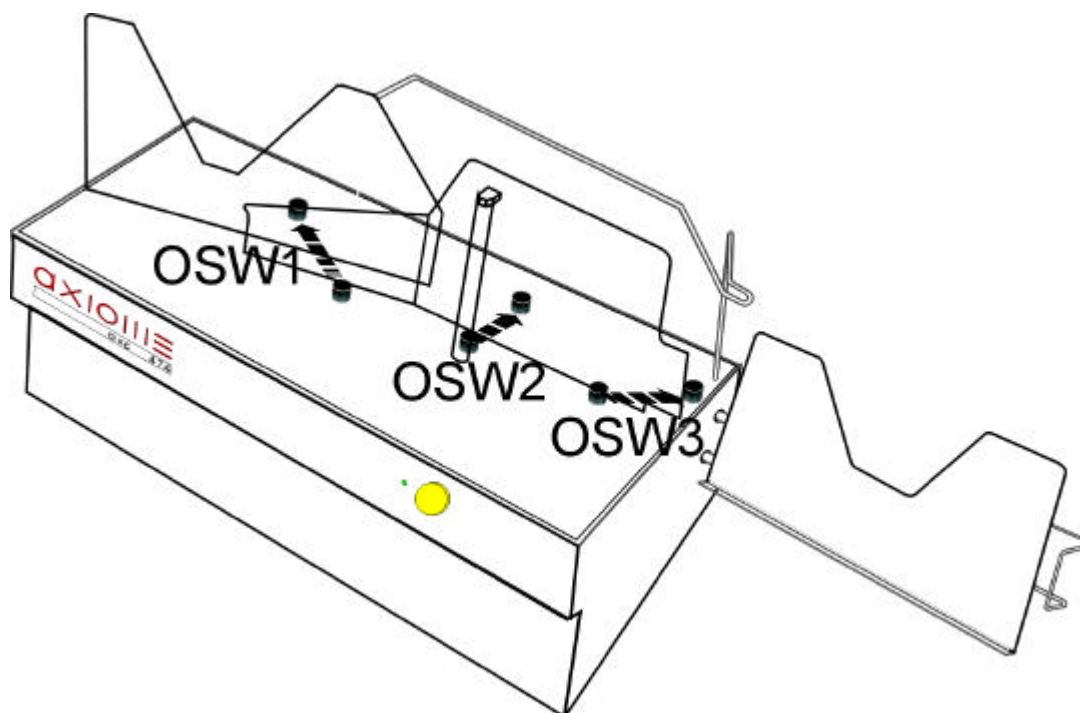
Figure 3

Chapter 5 :   Opening

5.1. To open the cover

It is necessary to open the cover that gives access to the barcode or OCR read head if you will adjust there position.

To open the cover:
1) remove the separation block
2) unscrew the cross screw placed behind the separation block
3) pull as indicated by the arrow
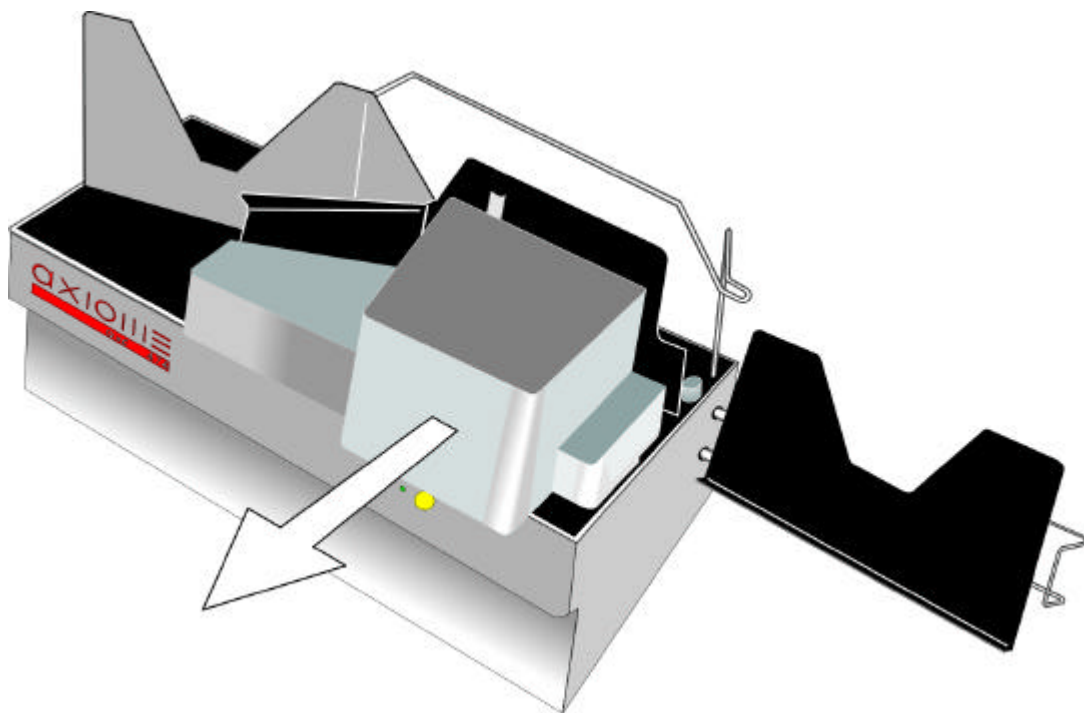
Figure 4

!!! WARNING !!!

It is not recommended to operate the axc 474 with an open cover.

Chapter 6 : Connections of the axc 474

6.1. Connecting the axc 474

When installing the axc 474 and its peripherals, the cables must be connected in the following order:

- Connect the cable for serial data transfer to the reader's first, then to the PC.

- Connect the external power supply cables first to the reader, then to an earthen wall socket.

- Once these steps have been taken, a pressure on the control switch will switch on the axc 474 and its peripherals.

On the axc 474 the connection plugs are located at the bottom of the machine (refer to chapter 4.2 Disposition of the plug connections, page 17).

6.2. Disconnecting the reader

Never try to disconnect a cable by pulling on the electrical lead. Instead, pull on the mechanical part of the plug.

- Remove the power cable.

- Disconnect the external power cable.

- Disconnect the data transfer cable.

6.3. Standard RS232 interface (connecting diagram)
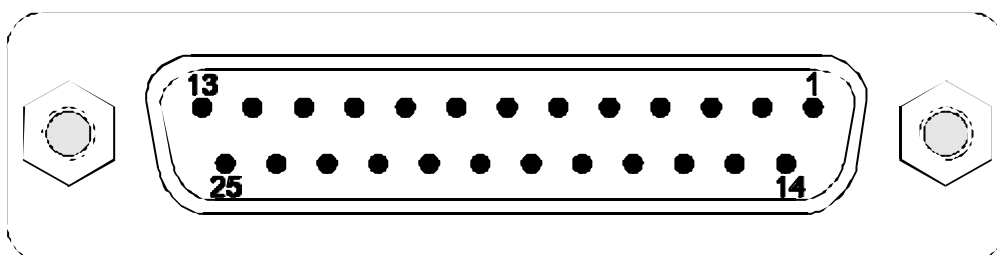
2	<=>	TXD
3	<=>	RXD
4	<=>	RTS
5	<=>	CTS
7	<=>	GND
20	<=>	DTR

6.4. RS232 connection cable

The following diagram corresponds to the RS232 / V24 serial connection between a PC and a reader (null modem). One cable of this type is delivered with the machine. However, such cables are also to be found at local dealer's under the designation "DB9 Female / DB25 male.

PC   **Reader**

9 Pin   25 Pin

PC (9 Pin)		Reader (25 Pin)
DCD	1	4 RTS
RXD	2	2 TXD
TXD	3	3 RXD
DTR	4	5 CTS
		6 DSR
GND	5	7 GND
DSR	6	
RTS	7	8 DCD
DCD	8	20 DTR
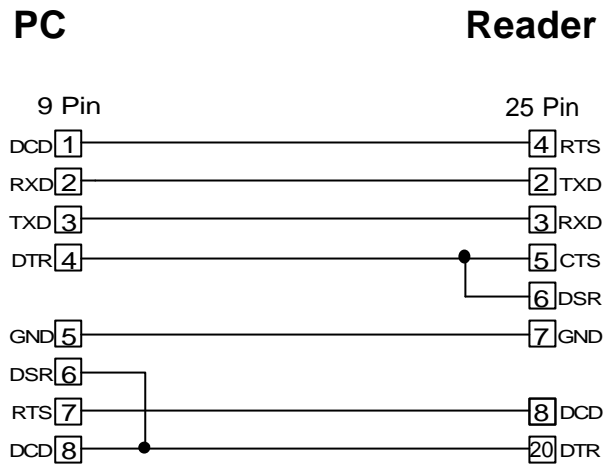
The equivalent DB25 female / male cable can also be obtained in the commerce.

PC   **Reader**

25 Pin   25 Pin

PC (25 Pin)		Reader (25 Pin)
Prot GND	1	1 Prot GND
TXD	2	2 TXD
RXD	3	3 RXD
RTS	4	4 RTS
CTS	5	5 CTS
DSR	6	6 DSR
GND	7	7 GND
DCD	8	8 DCD
DTR	20	20 DTR
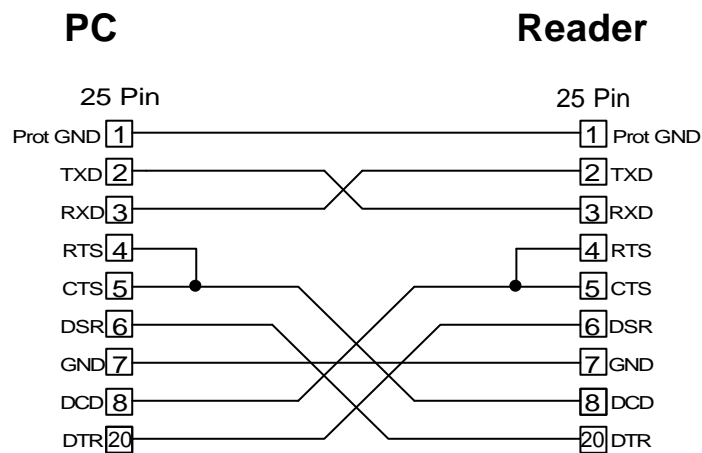
Chapter 7 :   Using the reader for the first time

7.1. Control switch & LED

The control switch presents 4 distinct functions with corresponding LED coloring.

7.1.1. Starting in read mode

Press the control switch until the LED turns green, then release. An auto-test is carried out. If it is unsuccessful the LED flashes red/green. If the problem persists, switch to test mode (see below). If the auto-test was successful, the reader is now in read mode and is ready to be piloted by the communication software.

7.1.2. Starting in test mode

Press the control switch until the LED turns red (approx. 2,5 secs.), then release. The reader is now in test mode, ready for various functional tests on the machine. For further information regarding this mode, please refer to Chapter 7.4 Insertion of documents, page 25.

7.1.3. Starting in bootstrap loader mode

Press the control switch until the LED turns orange (approx. 5 secs.), then release. The reader is now in bootstrap loader mode, ready for loading of new firmware. For further information on this mode, please refer to Chapter 7.3 Loading firmware, page 23.

7.1.4. Switching off

Whatever mode the reader is in, press the control switch until the LED turns off (approx. 3 secs.), then release.

In read mode, the reader switches off automatically after 5 minutes on standby (no command sent to the reader and no button pressed).

In test mode, the reader switches off automatically after 1 hour on standby.

In bootstrap loader mode, the reader does not switch off automatically.

Remark :   Never unplug the reader without having previously switched the reader off manually, so as not to lose auto-adaptable parameters.

7.2. Installing " Firmload "

Amongst the accessories packed with the axc 474 is a CD containing the firmware as well as a pre-configured Hyper Terminal file (474.ht) with the 19200,N,8,1 communication parameters used to load the firmware into the OMR reader.

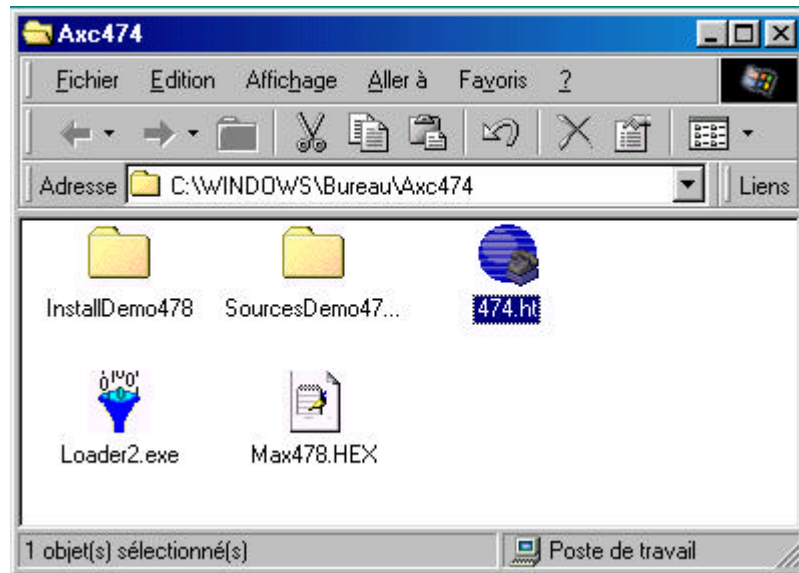To install, just copy the **Firmload axc474** directory from the CD into a directory on your hard disk.

Figure 5

7.3. Loading firmware

When first installing the axc 474, the firmware, the MAX interpreter and the default configuration parameters have to be loaded into the reader memory.

7.3.1. Setting the reader in bootstrap loader mode

Press the control button (approx. 5 secs.) until the LED turns orange, and release. The reader is now in bootstrap loader mode ready to receive controls. In this mode the communication parameters are still 19200,N,8,1.

If no erase or write controls are sent to the reader, the contain of the flash memory remains unmodified and it is possible to leave this mode by pressing the control button on the panel for 3 seconds. The LED goes out and, as soon as the button is released, the power cut off.

Remarks: The bootstrap and the loader are located in a protected block of the flash memory. Due to this fact they cannot be modified or destroyed by human error or by an accidental shutdown. However, the application program may be deleted or partially destroyed by LOADER misuse. In this last case, the reader will be unusable and the loading process must be restarted.

The bootstrap may not automatically detect a corrupt application. Especially when an invalid program is loaded on top of a previous valid program.

There is no power off timeout in the bootstrap loader sequence.

7.3.2. Download firmware

1. Run the **Loader2.exe** file located under directory **Firmload axc474**. The default communication port is COM1. If you wish to change it, select . Connect the cable, place the reader in BootStrap mode.
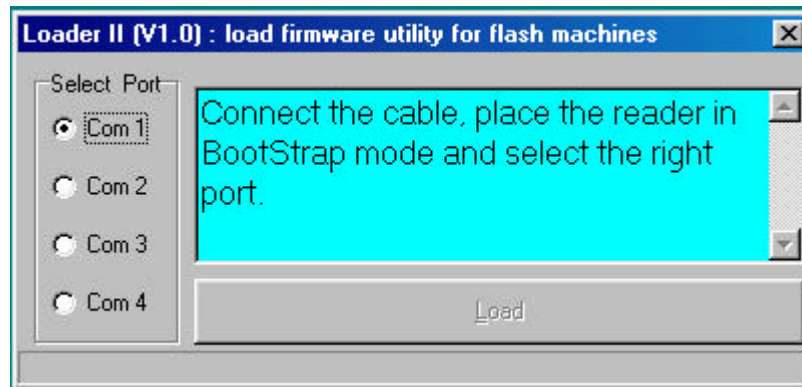
Remark: if communication is established, the reader will respond by giving its name and its release version.

2. Click Load and select the firmware (hex) file to download. During the transfer process, the LED of the control panel flashes orange. The download of the firmware (hex) file takes approximately 50 seconds.
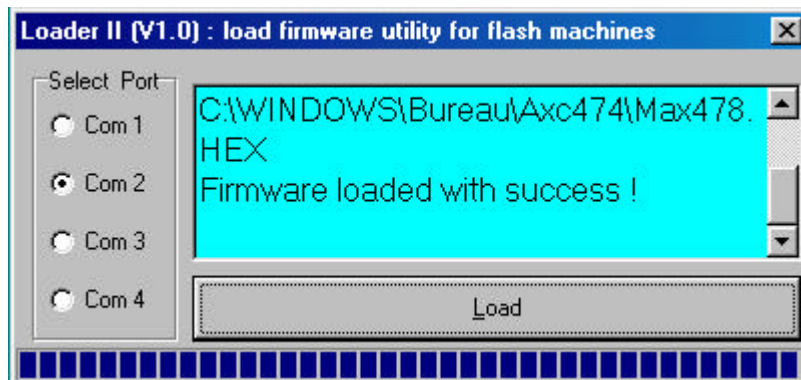
Remark: As soon as the download is finished, the reader is switched off.

7.4. Insertion of documents

The output tray must be adjusted to the format of the document.

The documents must be placed in the input tray with the barcode marks on the front.

Place the pile of documents on the reference's side and push it in the direction shown by the arrow.
Don't go beyond the fold in the sheet metal behind the documents.
In proceeding the same way, it is possible to insert only one document.
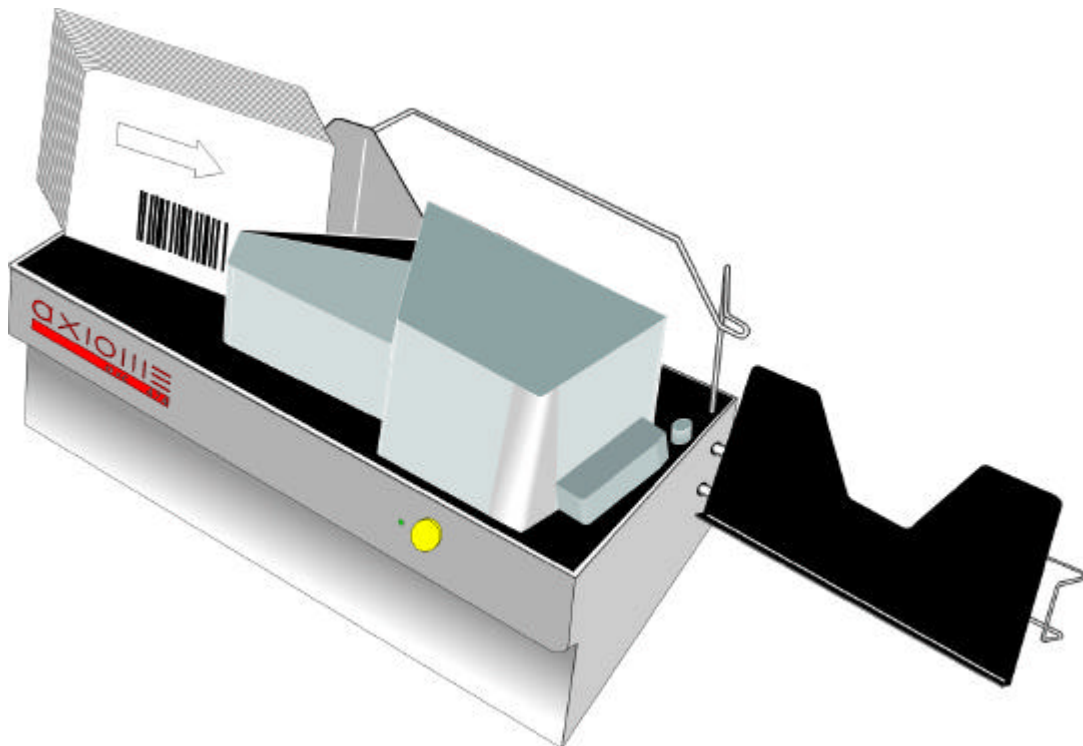
Insertion of documents

Figure 6

7.5. Adjusting the document separation

In the most cases it is not necessary to adjust the document separation, however, if the reader send a bad feeding or double feeding message, you must readjust it. To do so, follow the procedure below.

- Active the reading process using an application program or select the read test mode (refer to chapter 8.6.2 Transport mode, page 35).

- Put a document stack in the input tray.

- Adjust the grooved screw until documents are fed through without being stopped by the separation block. If two documents are simultaneously transported the grooved screw must be turned in the arrow direction.
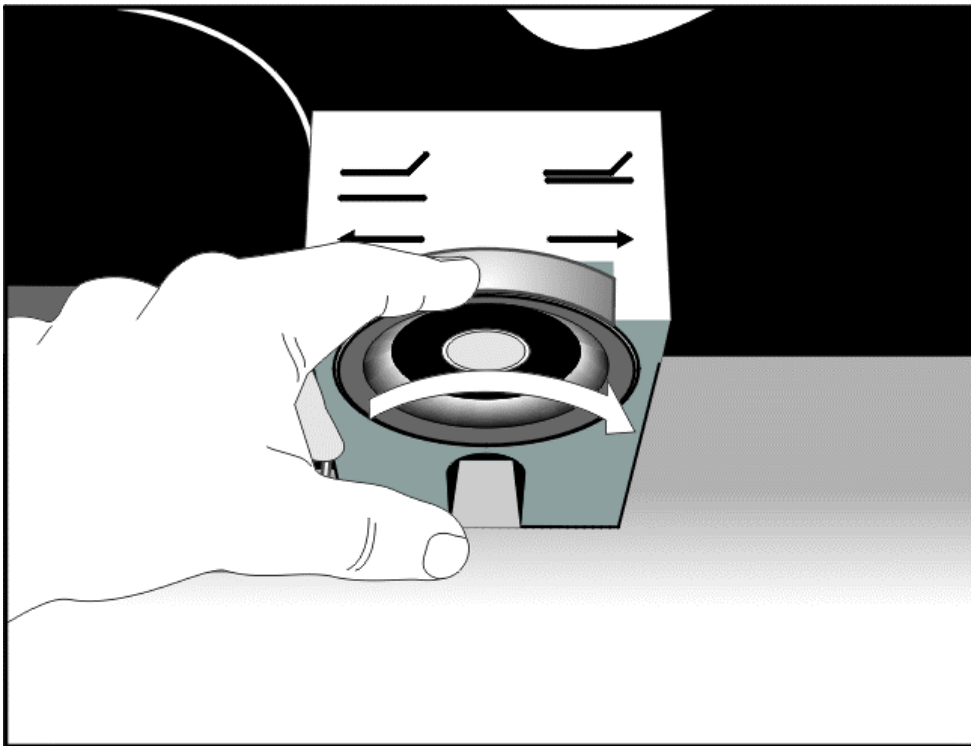
Figure 7

Chapter 8 :   Test mode

In test mode, it is possible to verify and set-up configuration of various reader functionalities. However, a serial connection with a computer and a HyperTerminal type communication program or equivalent is indispensable. The communication parameters must be configured at 19200,N,8,1.

To do this, please follow the procedure below :

1. Run Hyper Terminal, select FILE , then PROPRIETES
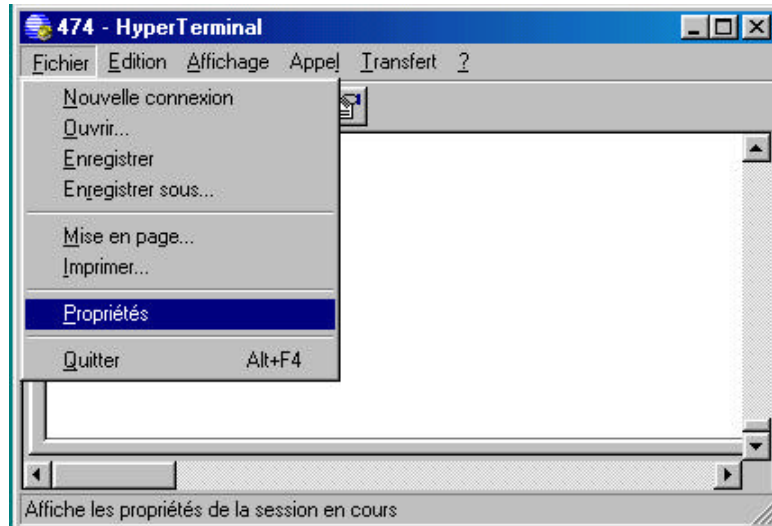
2. Select the communication port to which the reader is connected
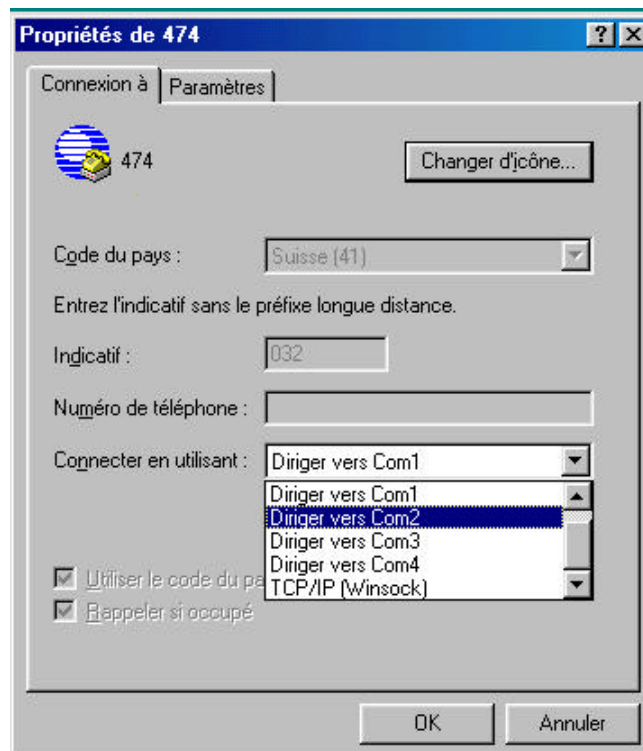
3. Configure the communication parameter to 19200,N,8,1.
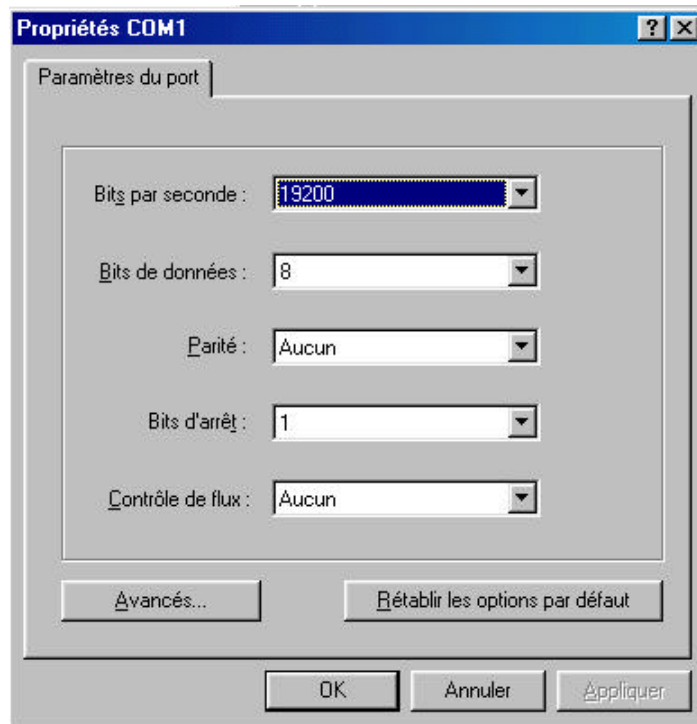
When the reader is switched to test mode (red LED), the following menu is automatically displayed on the PC monitor screen. If the reader is already in test mode, press escape on the computer keyboard to display the menu.
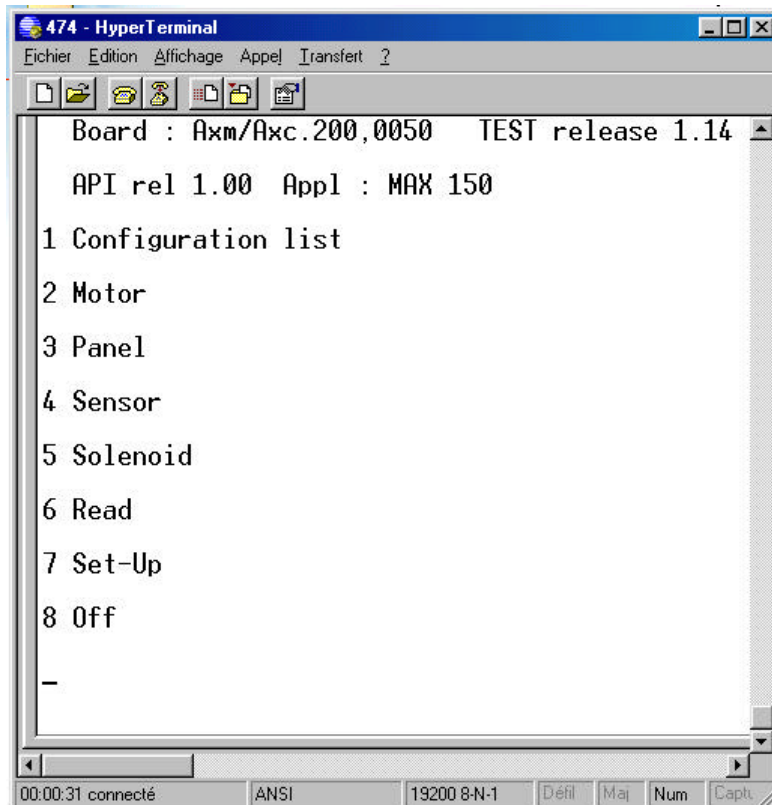
On the main menu the following indications are found :

- CPU Version (Axm/Axc.xxx)
- API Version (API release x.xx)
- Firmware Version (Appl : MAX xxx)

Remark :   To go to the next menu of your choice, press the corresponding key.
              To return to the previous menu, press the **ESC** button on your keyboard.

8.1. Configuration list

This list gives the reader configuration, indicating which elements are present or absent. The list only provides status of peripherals, and does not allow correction of errors. To set up peripherals, please use the SET-UP menu (see chapter 8.7 Reader set-up, page 35)
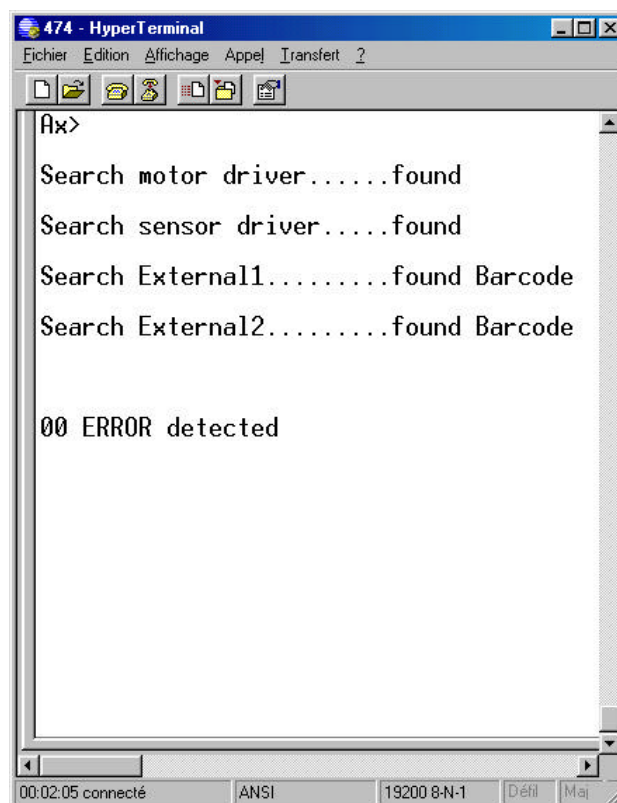
8.1.1. Configuration error detected

In case of an error, the list indicates the type and number of the detected error.
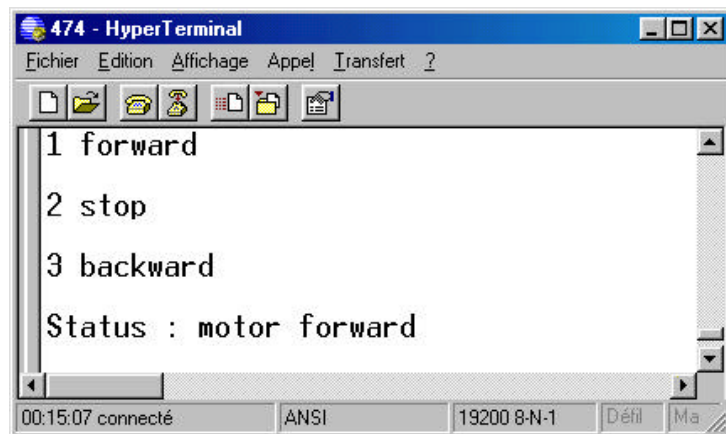
8.2. Motor test

The forward / backward function of the document transport motor can be verified using motor test.
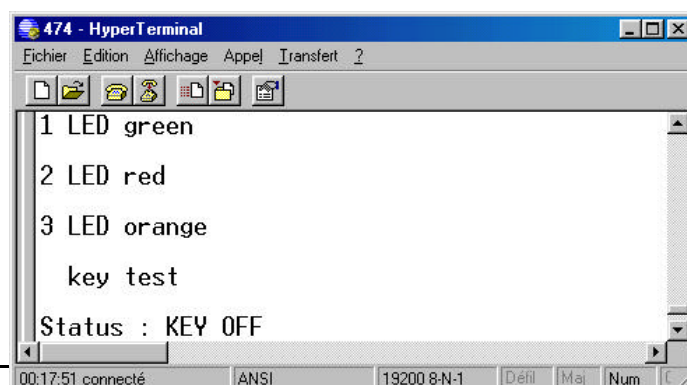
```
474 - HyperTerminal
Fichier  Edition  Affichage  Appel  Transfert  ?

MOTOR

1 forward

2 stop

3 backward_

00:13:05 connecté     ANSI      19200 8-N-1    Défil  Ma
```
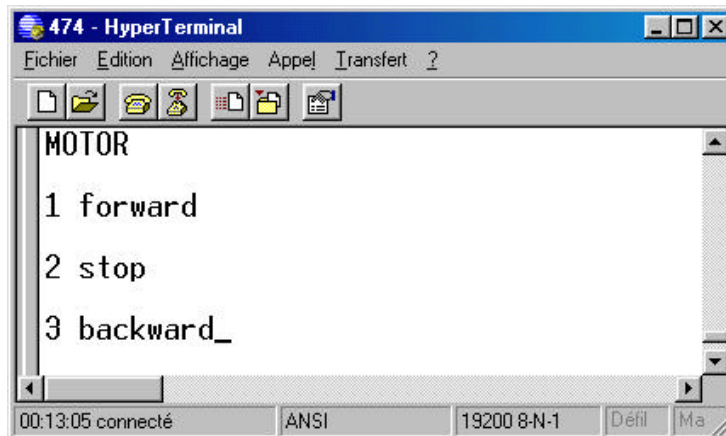
8.2.1. Motor forward

When the **1** key is pressed the motor runs in forward mode and the status is displayed on the screen.

```
474 - HyperTerminal
Fichier  Edition  Affichage  Appel  Transfert  ?

1 forward

2 stop

3 backward

Status : motor forward

00:15:07 connecté     ANSI      19200 8-N-1    Défil  Ma
```

8.3. Panel test

The LED color function and the control switch can be verified in (front) panel menu.

```
474 - HyperTerminal
Fichier  Edition  Affichage  Appel  Transfert  ?

1 LED green

2 LED red

3 LED orange

  key test

Status : KEY OFF

00:17:51 connecté     ANSI      19200 8-N-1    Défil  Maj  Num
```
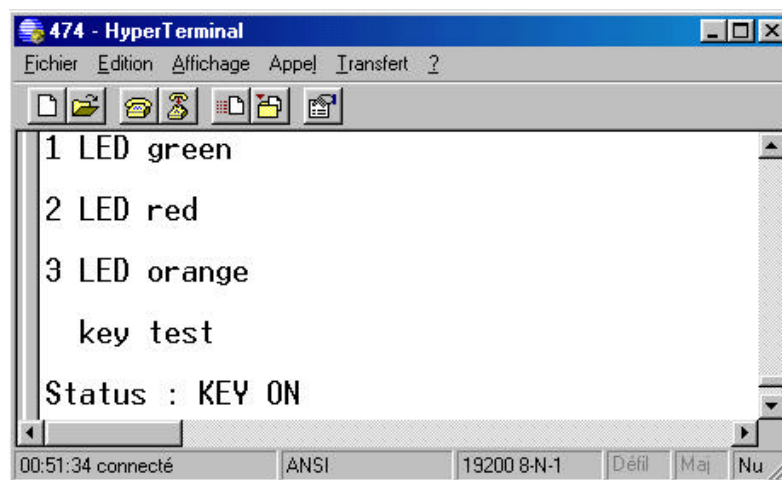
8.3.1. LED test

By pressing keys **1**, **2** or **3**, the LED (see position 2 of Figure 1, page 16) turns green, red, or orange respectively and status is displayed on the screen.
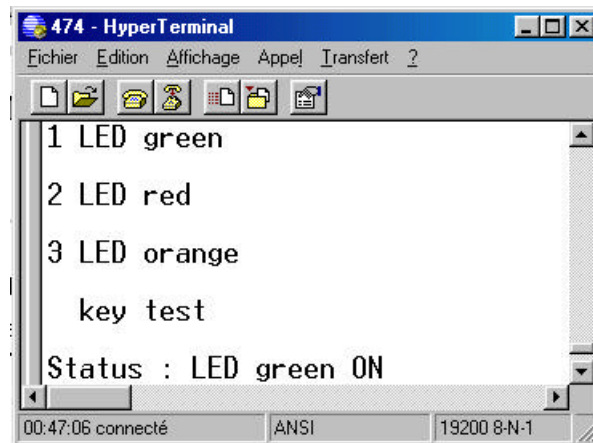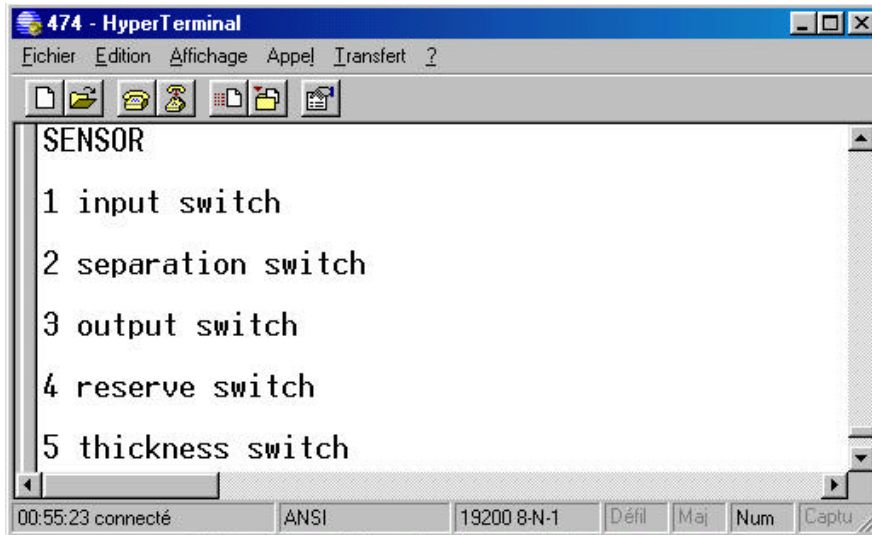

8.3.2. Key test

The status of the reader's control switch (see position 1 of Figure 1, page 16) is displayed on the screen and indicates whether switch is pressed (KEY ON) or released (KEY OFF).

8.4. Sensor test

Optical switch functionalities and thickness detector may be verified in sensor menu.


8.4.1. Optical switch test

The method to test the optical switch is digitally. The functions described further on correspond to the light switches as given below :

1 input switch	:	OSW 1
2 separation switch	:	OSW 2
3 output switch	:	OSW 3
4 reserve switch	:	not used

Please refer to Figure 3, page 18 for the positioning of the optical switches.

By pressing key **1**, **2**, **3** or **4**, the digital status of the corresponding optical switch can be obtained (+ = open / - = closed)
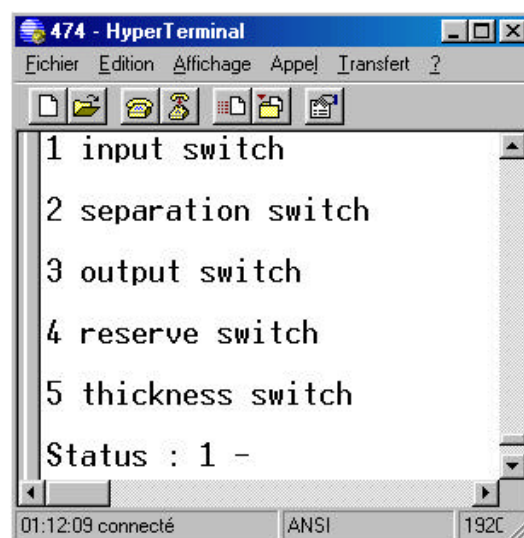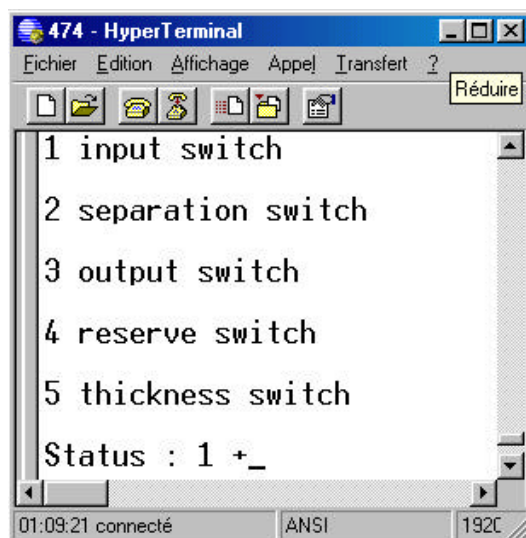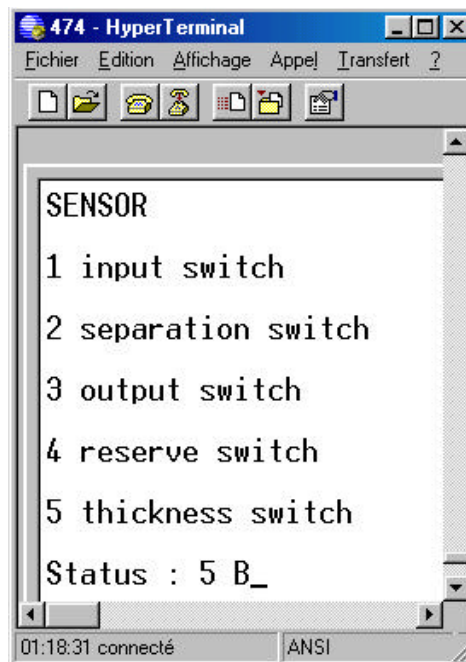
8.4.2. Thickness switch test

To test the thickness switch, documents of around 1/10 mm in thickness should be used. This is usually the case with 80g/m2 paper. The thickness of the document is measured and the result (represented by the letters A, B, C or D) is displayed on the screen.

Thickness measured

D = too thick

C = Thickness control OK
B = Thickness control OK

A = too fine


```
474 - HyperTerminal                    _ □ ×
Fichier  Edition  Affichage  Appel  Transfert  ?

SENSOR

1 input switch

2 separation switch

3 output switch

4 reserve switch

5 thickness switch

Status : 5 B_

01:18:31 connecté          ANSI
```
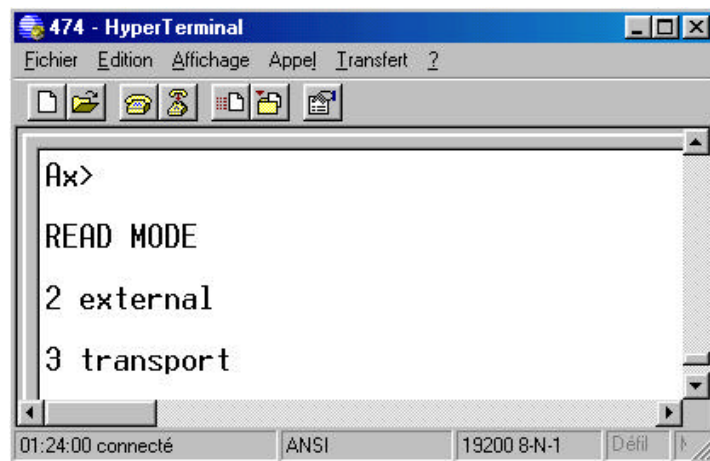
8.5. Solenoid test

The electro-magnet of the document feeding tray can be verified in the solenoid menu. By pressing key 1, the solenoid is fed and should push the paper towards the separating wheel.
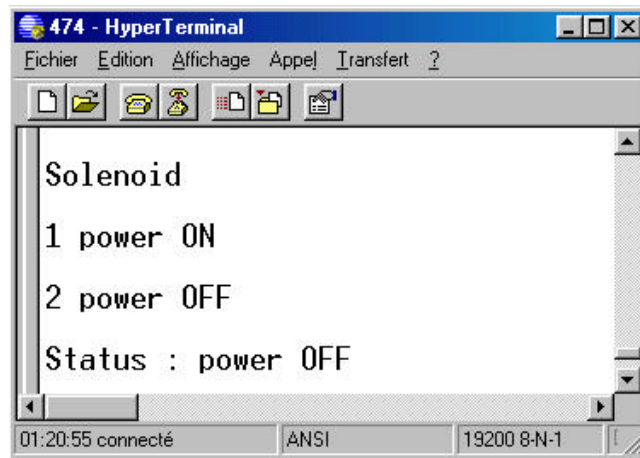

8.6. Read test

Paper transport mechanism, barcode/OCR read heads can be verified in the Read menu.

8.6.1. External mode

For this test, at least one barcode or OCR head should be present, along with respective decoders. The functioning and positioning of the barcode/OCR head is verified in this mode. The type of code and its value will be displayed on the screen. In this mode, the thickness detector is deactivated.
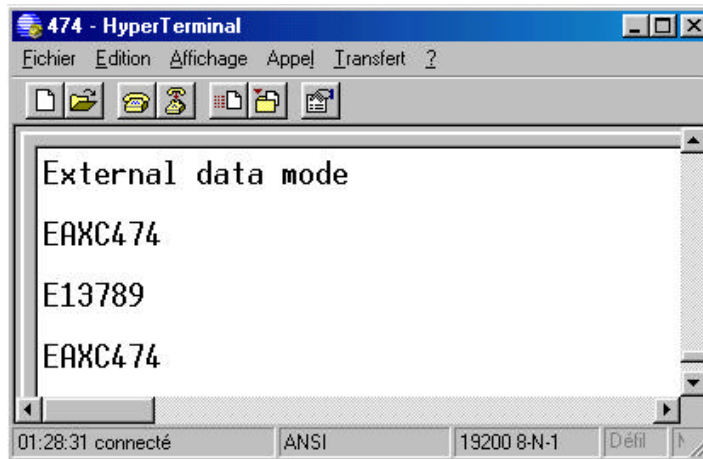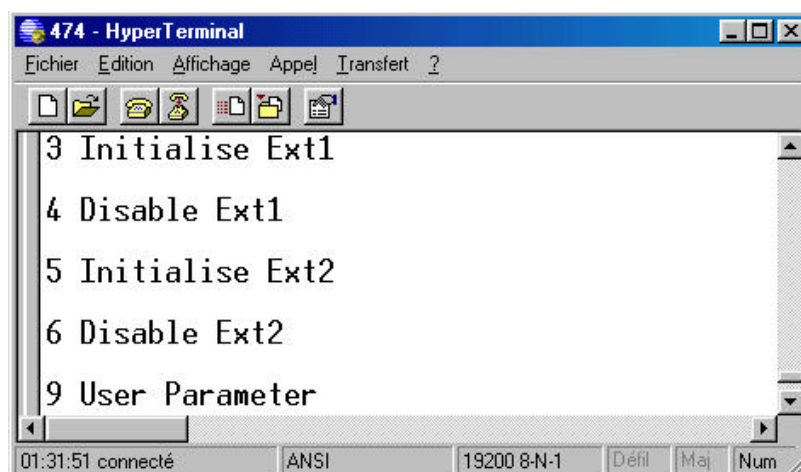

8.6.2. Transport mode

With the transport test, the transport function can be verified by ejecting 1 document out of 4 into the secondary tray. In this mode, all read heads (barcode, OCR) are disabled, but the thickness detector remains enabled.
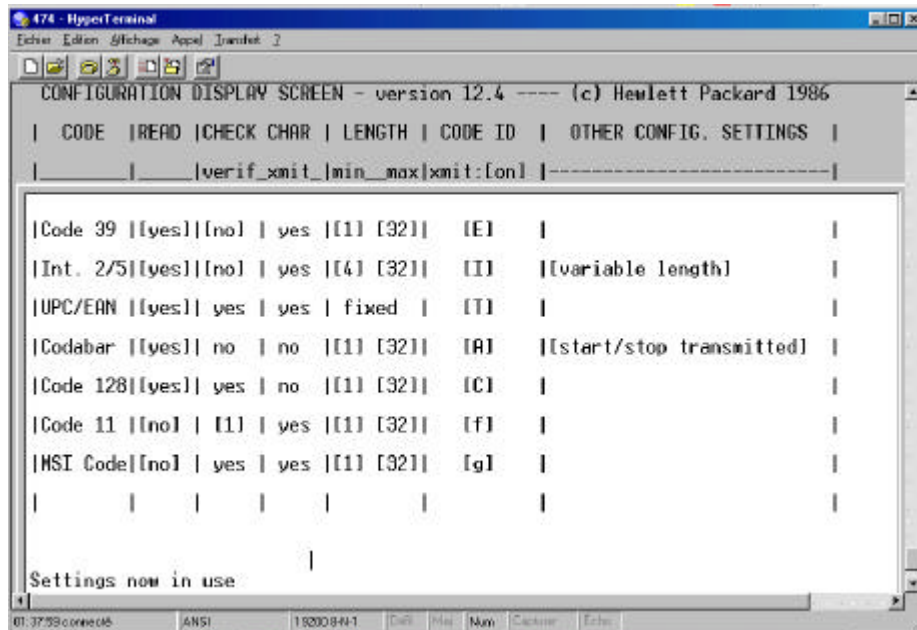
8.7. Reader set-up

The reader set-up menu allows configuration of peripherals (barcode and/or OCR).

8.7.1. Initialise Ext1

This menu allows activation and configuration of the decoder connected to external interface 1.

With a barcode decoder, this menu allows to select the different types of barcode to be read.

To change the displayed configuration, press **ENTER**, then activate or deactivate the types of barcode as desired by pressing the respective keys (see below).
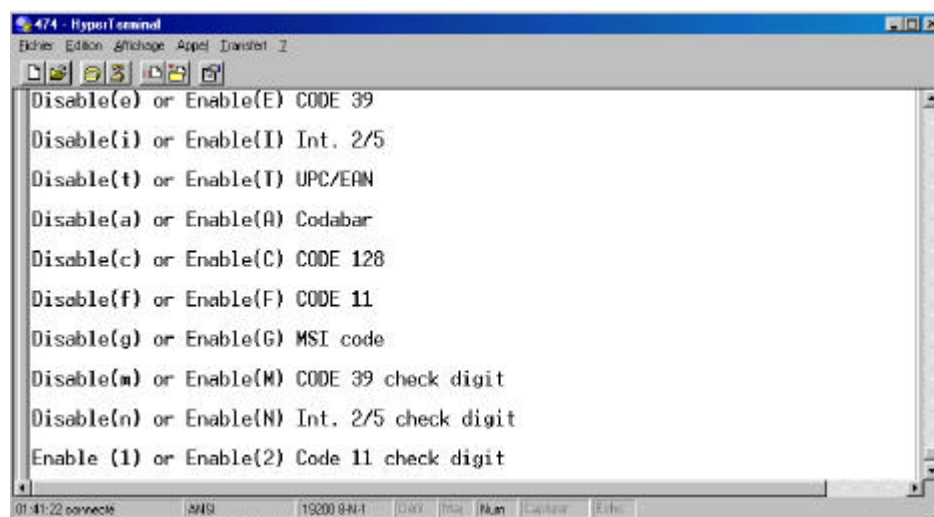
Remarks: Attention, these functions are **case sensitive**.

8.7.2. Disable Ext1

In this menu, the decoder connected to external interface 1 can be disabled. This becomes effective immediately after leaving the menu.

8.7.3. Initialize Ext2

In this menu the decoder connected to external interface 2 can be activated and configured. Please refer to chapter 8.7.1 Initialise Ext1, page 36 for the settings

8.7.4. Disable Ext2

In this menu, the decoder connected to external interface 2 can be disabled. This becomes effective immediately after leaving the menu.

8.7.5. User parameter

To be used to visualize and erase data contained in the flash memory (block 1).
Erasing user parameters leaves the reader with default parameters. Especially the baud rate setting of the reader is set back to 19200,N,8,1.

Chapter 9 :   Preventive maintenance

9.1. Cleaning the Separation Surface

- Take off the document separation block by pulling first horizontally 1 the grooved screw and after up 2 (see figure below).

- Clean the separation pad 3 (rubber) using a cloth moistened with methyl spirit.
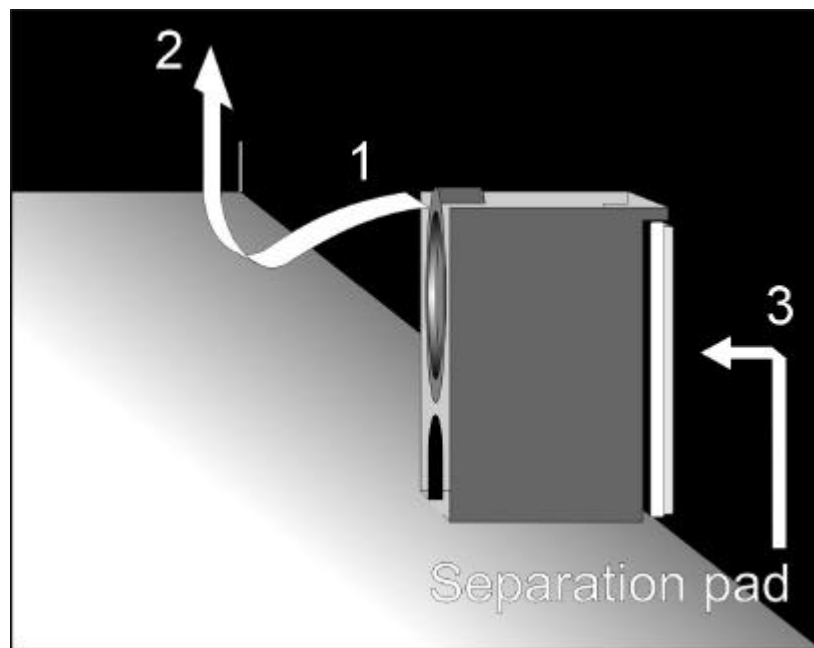
- Put back the separation block.

Figure 8

Chapter 10 : Error list

Below is a list of errors that may be returned by the reader in reading mode.

<u>No</u>	<u>Description</u>
000	DATA BUFFER EMPTY
001	BAD FEEDING
002	JAM BEFORE HEAD
003	JAM UNDER HEAD
004	JAM AFTER HEAD
005	JAM IN SORTING
006	NO SHEET ON LIFT
007	-
008	-
009	SHEET TOO SHORT
010	SHEET TOO THIN
011	SHEET TOO THICK
012	SHEET TOO LONG
013	INCORRECT SHEET
014	-
015	-
016	-
017	-
018	-
019	NO SHEET TO SORT
020	PATH NOT FREE
021	HEAD INIT ERROR
022	NO DECODER
023	-
024	FAILED Ch x
025	-
026	-
027	-
028	-

Chapter 11 : Parts list

The replacement parts for the axc 474 can be ordered from AXIOME Alpha SA or from your retailer.

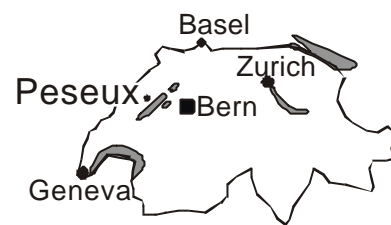| Description	Part number	Units per machine
EALI024	power supply 24V/50W connector mini din 12mm axc 474	1
EFUE034	Fuse 2 AT FST (for 230V)	1
EFUE037	Fuse 4 AT FST (for 115V)	1
EMAG125	solenoid stc 1253 dc-12v	1
FCOC132	Mini-pitch belt 80 132 x 1/4"	1
FORE139	O-ring 55.25 x 2.62	1
FORE148	O-ring 69.52 x 2.62	1
M985504	Transport wheel	4
M985506	Separation Wheel	1
SBARHP1	barcode decoder hp	1 or 2
SBATF950	Barcode head TB2-3	1 or 2
S474801	board CPU474-2	1
S478804	thickness controler	1
S478813	light switch board axc 474	3
S950803	Control panel axc 474/axm 950	1

Identification et saisie de données
Identification and data capture

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